REVOLVER

FOR YOUR ATARI® ST SYSTEM

USERS MANUAL

INTERSECT SOFTWARE

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Rich is an avid sun worshiper and spends much of his free time at the local beaches. Of course, REVOLVER has been keeping him indoors a lot this summer, something none of us here at INTERSECT will ever be allowed to forget!

With REVOLVER, Rich has gone beyond the ordinary, a program as beautiful as it is functional and only an inkling of what's to come...

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First Edition

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I PREFACE

When I started REVOLVER I really did not know what I was getting into. The concept was simple – write a program that saves the computer's memory to disk and then restores it. It took me about 3 weeks to get a prototype up and running. Then the idea to throw in the disk commands came, and after that more and more utilities were added. REVOLVER just grew and grew. Just when I thought I was done, I rewrote the user intereface to clone GEM. I could not use the ST's built in operating system since the operating system does not even know REVOLVER is there.

REVOLVER is a unique piece of software that required a lot of "hacking" to work properly. Much of the ST's operating system is kept secret, so the only way to figure things out is to spend hours digging and hunting. I am pleased with the results of my effort. I sincerely hope you find REVOLVER a great aid in your daily computing, because that is why I worte it!

I would like to thank Randy Mears for his support and programming help. Jeff Rigby for writing the manual. Megamax for having outstanding product support. Tim Keon for making me laugh. The BEATLES for inspiration. My family and friends for being there for me.

Richard J. Plom

We've learned alot about the ST while writing this program. Future releases of REVOLVER will see many exciting new features as well as the polishing of current features for more ease of use. (Read the upgrade policy at the back of the manual.)

II REVOLVER: Introduction..

REVOLVER is a powerful and unique package of utilitys that push the Atari ST beyond its previous limitations. With REVOLVER the possibilities are endless...

A) An Overview..

REVOLVER is not a desk accessory and is therefore active at all times, even within TOS environments. It works in all resolutions; low, medium and high, so that you can use it with both monochrome and color systems.

REVOLVER is loaded at boot time from within the AUTO folder. It is activated by simultaneously pressing the left SHIFT key and the ALTERNATE key (REVOLVER will check to make sure your computer is not in the middle of some critical operation – it will wait until that operation is over before letting itself be invoked.)

When REVOLVER is invoked, your program will be frozen and the following features will be available from REVOLVER's menu.

ROLL OUT will save the program you are running, in its current state, to Floppy, Hard Drive or Ram Disk for future continuation. It does this by saving the contents of the computer's memory and hardware registers for the active partition. As the contents of memory are saved to disk, the information is compressed. A typical Roll out from a 1 meg partition will require about 300K. The actual disk size of the ROLL OUT file will depend on the information in memory much like the size of an ARC'd file using ARC.TTP depends on the type of file being compressed.

Since the entire partition's RAM memory (except REVOLVER itself and the REVOLVER accessories like the RESET proof RAM Disk and Print Spooler) and the contents of all the hardware registers are saved, the program, any AUTO Programs, Desk Accessories, Ram Disks, etc. are all saved in one step. When this memory image is Rolled in, the computer, programs and data will be as they were in the current partition before the Roll out.

B) REVOLVER'S Capabilities..

Loading a popular Word Processor, Dictionary and 30K text file would take **1 min 45 seconds** from the desktop using a Hard Disk. REVOLVER will load them (from a previously ROLLED OUT file) from the same HD in less than **10 seconds**!

Not only is this a savings in time but it is accomplished in one step. This perceived speed advantage is seen because the Word Processor program spent time setting up the dictionary and text file in memory during the first load from the Desktop. After it has been rolled out, all the computer has to do is put the Rolled out file back in memory; this takes much less time to do. There are many programs that have a long setup time, all of them can benefit from REVOLVER's Roll Out ability.

Setup a LOW or MEDIUM resolution desktop with your favorite Desk Accessories. ROLL it out and you can ROLL it in at any time from within any resolution.

REVOLVER'S built in "Switcher" allows you to switch between up to 8 applications (memory permitting). And in addition allows you to Roll In and Roll Out of those RAM partitions giving your ST unbelievable versitility.

Save your place in a Game or Business application. When you Roll In a file it continues execution EXACTLY where you rolled it out.

Since REVOLVER is available from within just about any program, the utilities included in REVOLVER are available to you at any time, even while running non-GEM programs.

REVOLVER also contains the following utilities:

"FULL" disk commands including wild cards
Setup Printer Port and RS-232
Ram Disk(Reset Proof)
Printer Spooler (Reset Proof)
Send String to port.
Mouse Speed (Changes the ratio of from 1:1 to 8:1)
Set System Date and Time
Key Click (on-off)

Carriage Bell (on-off)
Key Repeat (on-off)
Verify (disk verify on-off)
A screen snapshot utility
Reboot System
A VT-52 emulator with RS-232 setup.
Warm or Cold Boot

III INSTALLING REVOLVER

A) Using the Install Program.

Double click on the Install program (**INSTALL.PRG**) on your REVOLVER disk. A dialog box will appear with drive ID letters in it. Just click on the drive letter of your boot disk. If a Hard Disk Drive, your boot disk is probably **C:**. REVOLVER's install program will copy REVOLVER to an AUTO folder on the drive selected when you click on the Install button. It will also create an AUTO folder if one does not already exist.

Clicking on REMOVE will delete the REVOLVER files from your AUTO folder.

NOTE: *Install REVOLVER only with the supplied install program! Installation by copying the files to your AUTO folder is not recommended since REVLOAD.PRG must be the first program in the AUTO directory. Using the Install program insures a successful installation.*

Once installed, Revolver will load the next time you boot your system (press the RESET button or turn your machine off then back on). Your computer will appear to boot twice.

Revolver does a boot to install itself and then performs a normal boot.

If you wish to boot your system without Revolver installing itself, simply hold down the **ALT–LEFT SHIFT** keys. Note: Revolver gets its memory when the system cold boots, if you wish to make sure your system has all of it's RAM accounted for, you must cold boot and hold down the **ALT–LEFT SHIFT** keys. This insures that Revolver has not and will

not reserve any memory for itself.

You may want to re-examine which programs you want in your AUTO Folder or the Desk Accessories on your boot disk. Since REVOLVER contains many of the features found in some of the common AUTO folder programs and Desk Accessories, there is no sense in duplicating them. Also, since it is possible to Roll In Desk Accessories and AUTO folder programs along with programs and data (as a package), there is no need to have them resident with your permanent boot disk.

For Example: You can boot with GDOS installed in the Auto Folder, load Microsoft Write (which calls GDOS to install the screen fonts using the list of fonts in the ASSIGN. SYS file), then Roll the file out. You can then remove GDOS from the AUTO folder. It will not be needed again. When you Roll In the Microsoft Write file (the one you just made) back in again, GDOS as well as the screen fonts are already installed.

B) NO-NO'S

Don't call REVOLVER while your computer is in the middle of Disk Reads, Writes or any intensive I/O operations. REVOLVER is a far cry from the early "Switcher" programs that would crash if you switched while ANY I/O was going on. REVOLVER will check and will not allow itself to be invoked until the disk I/O is over. Still, avoid accessing during disk I/O and you will be assured of trouble free operation.

We would appreciate any reports on problems encountered while using REVOLVER with other programs. This feedback will insure that future versions of REVOLVER will work FLAWLESSLY with those programs (see upgrade policy and Support Section).

C) MEMORY CONFIGURATION

Revolver's Roll Out file (.M?M) MUST be rolled into the same or larger RAM memory configuration for it to work. For you, the

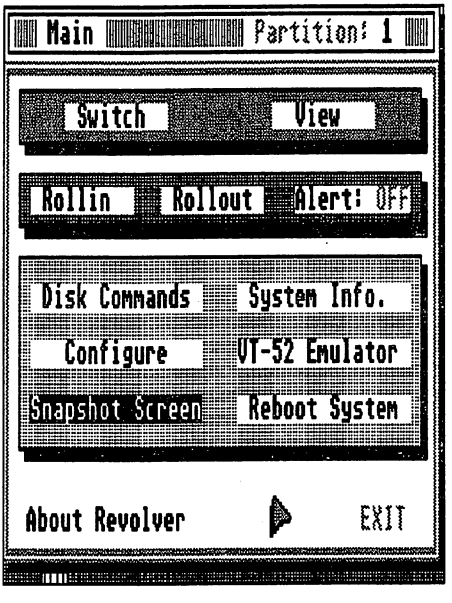
user, this means that the settings in the RAM Buffers Menu (Switcher Partition, RAM Disk, Folder Fix, Print Spooler and Disk Command Buffer) must not change after they have been set initially. If any of the above RAM features are changed, then any Roll OUT files (.MEM) previously made may not work. For this reason, we suggest that you set the values for the RAM Buffers and save the configuration before you seriously begin to Roll out files.

NOTE: When you save a new memory configuration for REVOLVER, the computer will COLD BOOT the next time you press reset or select WARM BOOT within REVOLVER.

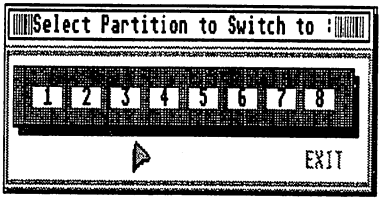
IV REVOLVER The Main Screen

By simultaneously pressing the **Alternate** and **Left Shift** keys you will bring up REVOLVERS main menu. We've tried to make the user interface as easy and familar to use as possible. There are several sub–menus under the main screen. In most cases, once set up, the main screen should be the only one you need to access.

Click with the left mouse button to select any of the buttons, click on EXIT to return to your program.

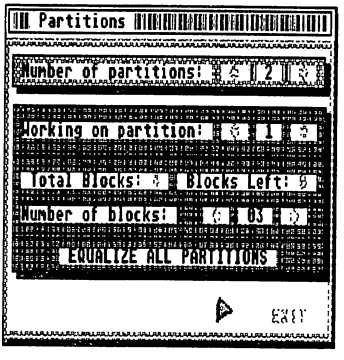


A) SWITCH (REVOLVERS "Switcher")



Clicking on the Button marked **SWITCH** will bring up the box seen at the right. REVOLVER can have up to eight partitions to switch between (provided you have enough memory).

You can move between Partitions by clicking on one of the Partition numbers or by simultaneously pressing the **Control–Left Shift–Alternate** keys from within any partition. Every time you press that key combination you will be moved to the next higher partition. If the next higher partition hasn't been booted yet, it will auto–boot. When you reach the highest number partition (set in the Configure Ram Buffers Menu) you will wrap around to #1 partition.



REVOLVER'S "Switcher" defaults to two equal size partitions, you may configure it differently by setting up partitions of different sizes (Partition Menu Screen at right). If your memory permits, you may have up to 8 partitions.

If you wish to change the partition sizes (REVOLVER's default is to divide the memory into equal partitions), you may set up partitions of different sizes by re–allocating the memory blocks that REVOLVER uses to determine the size of a partition. A 1 Megabyte machine has 4 memory blocks, 2 Megs are made up of 8 blocks , 2.5 Megs are made up of 10 blocks and 4 Megs are made up of 16 blocks. You may allocate a minimum of one block to each partition that you have defined. (a block is apx equal to 256k)

REVOLVER's partitions, as with all of REVOLVER's RAM

utilities, are reset proof. If one of the partitions "crashes" or you press the reset button, ONLY THE CURRENT PARTITION WILL WARM BOOT. All other partitions will remain as they were.

EXAMPLE

We have a 1 meg ST and we want to set up 2 partitions. The first partition will have **First Word** and the second **DCOPY**. We want to have more memory available for First Word so we will set up the first partition with 3 of our 4 blocks of memory. The second need not be as large so we will set up the second partition with 1 block. (see page 9 **Configure Partitions** for more information)

1) Click on the Configure option on REVOLVER's main screen.
2) Click on RAM Buffers
3) Click on Configure Partitions
4) Using the right and left arrow keys scroll the number of partitions to 2 (default).
5) Set the working partition number to 2 by clicking on the arrows on either side of "Working on Partition".

NOTE the **Total Blocks** and **Blocks Left** fields, the blocks left field will show zero. You must release blocks from the second partition so that you can add them to the first partition, that is what we are now doing.

6) Remove blocks from partition 2 , adding blocks to the blocks left field, by clicking on the arrow on the left side of the "Number of Blocks" field so the the number decreases (in our 1 meg machine, from 2 to 1.) and the "Blocks Left" increases from 0 to 1.
7) Now change the working partition number back to 1 and increase the number of blocks for that partition by 1.

NOTE: The first partition must be the largest, the second highest the second largest, etc. A good 1040 configuration example is 3 blocks to the first partition, 1 block to the second... with a total of 2 partitions. The smaller partition is usable with small programs and the desktop can be useful in itself.

8) Save the Configuration by going to the bottom of the Configuration menu (exit the Ram Buffers Menu) and select Save.
9) Cold boot the computer. You must allow about 5 seconds of off time if you are using the Off-On button. (you can use Revolver's built in cold boot)

6) After cold booting you will be in partition 1. Use the GEM desktop to load 1st Word as you would normally do so.
7) Press simultaneously the Control-Left Shift-Alternate keys to move to partition 2. If you need to boot with a different disk to run DCOPY you should install it in your boot drive before pressing the above keys. Your computer will now boot partition 2.
8) Load DCOPY from the desktop.

Thats it, to move from one partition to another, just press the **Control–Left Shift–Alternate** keys or bring up REVOLVER (Left Shift–Alternate) and use the SWITCH option.

b) VIEW (Partition)

When you click on View in the main menu, you will be presented with a box exactly like the Switch option above. If you click on one of the ACTIVE partition numbers, REVOLVER will display the screen of that partition. Holding down the left mouse button and moving the mouse up or down will allow you to scroll the viewed screen in front of the current application screen. Clicking on a the right mouse button will return you to REVOLVER's main menu.

View will allow you to easily see what program is in each partition without having to "SWITCH" to that partition.

Note: Viewing a screen in a different resolution than that of the current partition results in an accurate but unsightly display.

c) HOW TO USE ROLL OUT

Here is a sample session:

You want to set up a .MEM file (our extension for the Memory Image file created during a ROLL OUT) for INTERLINK. You have several favorite Desk Accessories you like to use with INTERLINK to background download, strip carriage returns from ASCII files or whatever. Here is what you do:

1) Move the Desk Accessories you want included with INTERLINK to your boot disk. (maximum # of Desk Accessories is 6)
2) Reboot your computer (this loads the Desk Accessories into Memory)

3) Load in Interlink from the desktop.
4) Load a text file into the buffer..
5) Load the Protocols (loadable emulations).
6) Move the Cursor to the point in the text file you would like it.
7) Press the LEFT SHIFT-ALTERNATE keys simultaneously.
You will be greeted with the Revolver box in the upper left of your screen.
8) Choose the switch partition option and switch to another partiton (you can't roll out of the partition you are currently in)
10) Press the LEFT SHIFT-ALTERNATE keys simultaneously.
9) Now Select Rollout with the mouse and click the left Mouse button. A custom File selector box will appear.
10) Enter the path and filename on the top line or do the following:

a) At the bottom left of the File selector box is a drive select section with two arrow pointing left and right with a drive letter between. (see page 26)
Using the mouse point to the right and left arrows and click with the left mouse button to change the drive ID letter.
When the proper drive ID letter appears SINGLE click on it. The path will now be set to the ROOT of the drive selected.
b) Using the mouse click on the folder (Folders have a reverse diamond to the left of the file name) you want the .MEM file saved to. To move up out of a folder click on the Folder with the two dots as a name.
c) Enter the name you want the .MEM file saved under on the line at the bottom left of the custom file selector box. You don't have to specify the extension (.MEM) it will be added to the filename (less than 8 letters) that you enter.

11) Click on OK at the bottom right. Revolver will show you a progress box on how things are going. Roll out takes twice as long as Roll in due to the verify that takes place on all writes to disk.

You can now remove the Special Desk Accessories from your boot disk. They won't be needed anymore since you just saved them with INTERLINK in the .MEM file.

d) HOW TO ROLL IN:

We will use the .MEM file saved in the above example to show you how to ROLL IN a .MEM file.

We will assume that you removed the Desk Accessories loaded in the above example from your boot drive and rebooted your computer. It's not necessary but it makes more of an

impression for the Desk Accessories to show up as if by magic.

1) Press the ALT-LEFT SHIFT keys again and Revolver will pop back up. Now, using the left mouse button select ROLLIN.

2) A custom file selector box will appear. Pick the file name you chose in the above example. You may have to move to the drive and folder you chose before to see it. (Same as above: remember, you can't roll into the same partition that you are currently in.)

3) Click on OK at the bottom right and the file will Roll in. Switch to that partition and you will see that it is as it was when Rolled out.

That's it. Check it out and you will find the desk accessories are there and the cursor resting where it was when you rolled the file out.

e) AUTO ROLL OUT ALERT

Auto Roll Out Alert will alert you that it's time to switch partitions and Roll Out. Auto Roll Out Alert can be set to a minimum interval of 5 minutes.

EXAMPLE

We are going to setup AUTO ROLL OUT ALERT for an interval of 10 minutes.

1) Press the ALT-LEFT SHIFT keys to bring up REVOLVER

2) Click with the left mouse button on Configure

3) In the center of the Configure screen click on **Rollout Alert Every:**

4) Enter on the line **Rollout Alert Every:** enter the time interval between Roll Outs.

5) Click on the exit button.

6) Click on exit again to leave the configure menu and return to the main screen.

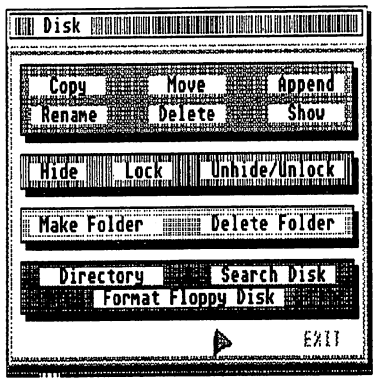
7) In the upper right of the main REVOLVER screen Click on **Alert: OFF** and it will toggle to **Alert: on**. This turns the Auto Alert off and on.

8) Click on EXIT and use First Word as you normally would.

At the interval you specified an ALERT box will appear prompting you to Roll Out your partition.

V DISK COMMANDS VIA REVOLVER

A word about Wild Cards and pattern matching. Several of our disk commands can use wild cards to pattern match. The two characters that are used as wild cards are the * and ?. A question mark (?) can be used to substitute for a single character and the Asterisk (*) can be used to substitute for multiple characters.



b) COPY FILE(s)

Copy a file(s) from one drive or folder to another drive or folder. You also have the ability to use Wild Cards to copy multiple files by pattern matching with this command.

EXAMPLE: Copy a file(s) from drive A: to drive C:

1) Press the LEFT SHIFT-ALT keys to bring up REVOLVER
2) Click with the left mouse button on Disk Commands
3) Click on Copy with the left mouse button
4) With the custom file selector choose the path to locate the file or files you want to copy.
5) If you are inside a folder and you want to copy ALL the files in that folder then make sure *.* appears on the selection line at the bottom of the file selector (default).

If you want to copy a single file, just click on it with the mouse or enter the file name on the selection line at the bottom of the box.

To pattern match, for instance you want to copy all the files that end in .PRG just put *.PRG on the selection line. (* is a wildcard) To copy everything that begins with DCF just put DCF*.* or DCF?????.* on the selection line.

6) Click on OK.
7) A new file selector box will be displayed. Choose the drive and path you want the file(s) copied to.

8) Click on OK and the files will be copied.

c) MOVE FILE(s)

Move files is the same as Copy files, but the file(s) are automatically removed from the original drive and–or folder after the copy. You can use pattern matching and wild cards with this function.

d) APPEND FILE(s)

Append will tack file(s) onto the end of a specified file. For Example, suppose we have a collection of letters about a particular subject and we want to put them together under one filename. You could use a word processor to merge these files, or you could use the Disk Function APPEND from within REVOLVER. You may use Pattern matching and wild cards when selecting the files that will be appended.

EXAMPLE:

1) Choose Append in the Disk Commands Menu.
2) Using the custom file selector box select the Drive and path that the text file(s) reside in. You may use pattern matching and wildcards.
3) Select the file you want to append by clicking on it or entering the filename on the selection line.
4) Click on OK.
5) Using the File selector box choose the file you want the above file(s) appended to.
6) Click on OK.

e) DELETE FILE(s)

This function is similar to the Trash can delete available to you from the desktop. You can use pattern matching to delete multiple files. Warning, *.* will delete all files in a sub–directory, if in the root, all files on that drive not in a sub–directory will be deleted.

1) Press the LEFT SHIFT–ALT keys to bring up REVOLVER.
2) Click with the left mouse button on Disk Commands.
3) Click on Delete Files with the left mouse button.
4) With the custom file selector choose the path to locate the file or files you want to Delete.
5) If you are inside a folder and you want to Delete ALL the files in that folder then make sure *.* appears on the selection line at the bottom of

ıe file selector.
you want to Delete a single file just click on it with the mouse or enter the file ame on the selection line at the bottom of the box.
o pattern match, for instance you want to Delete all the files that end in .PRG ıst put *.PRG on the selection line. (* is a wildcard).

:NAME FILE

ename will Rename a file. You can also perform a RENAME ɔm the GEM desktop by Clicking on a file and then choosing ıow Info (GEM MENU BAR).

) Choose RENAME in the Disk Commands Menu.
) Using the custom file selector box select the File you want to rename.
) Click on OK.
) Enter the name you want the file to have on the selection line at the bottom ıf the File selector.
) Click on OK.

HOW FILE

ıis allows you to view the contents of a text file.

) Choose Show File in the Disk Commands Menu.
) Using the custom file selector box select the File you want to Show.
) Click on OK.

ıe File will now be displayed on screen. You can use the Up ·row key and down arrow key to page backward and forward ırough the text file. A control–c will take you back to EVOLVER's Disk Command screen.

IAKE FOLDER

ake Folder will make a folder on the Drive specified.

XAMPLE:

) Choose Make Folder in the Disk Commands Menu.
) Using the custom file selector box select the Drive and path that you would ke the Folder to reside in.
) Enter the name of the Folder you wish to create, on the Selection line
) Click on OK.

:LETE FOLDER

elete Folder will delete a folder, it's similar to dragging a folder) the trash can from the Desktop.

) Choose Delete Folder in the Disk Commands Menu.

2) Using the custom file selector box select the Folder you want to delete.
3) Click on OK.

** Folders have the reverse diamond to the left of them. **

j) HIDE FILE(s)

Hide File(s) will hide a file. It will not appear in the Desktop directory window. You can use wildcards and pattern matching with this function.

EXAMPLE:

1) Choose Hide File in the Disk Commands Menu.
2) Using the custom file selector box select the File(s) you want to Hide.
3) Click on OK.

An H will appear to the left of the filename. This means the file is hidden. You will not be able to see this file from the GEM desktop.

k) LOCK FILE(s)

Lock File(s) will lock a file. This will keep you from inadvertently erasing it from your desktop. You can use wildcards and pattern matching with this function.

EXAMPLE:

1) Choose Lock File in the Disk Commands Menu.
2) Using the custom file selector box select the File(s) you want to Lock.
3) Click on OK.

An L will appear to the left of the filename, this means the file is Locked. You will not be able to delete this file from the GEM desktop.

l) UNHIDE/UNLOCK FILE(s)

This feature will unhide and unlock file(s). You may use pattern matching and wild cards with this function.

EXAMPLE:

1) Choose Unhide/Unlock File(s) in the Disk Commands Menu.
2) Using the custom file selector box select the File(s) you want to Unlock/ Unhide. There should be a H, L or both to the left of the Filename.
3) Click on OK.

The L and H in front of the filename will disappear from REVOLVER's listing.

m) DIRECTORY

This function will show you a directory of the files on a specified disk or folder.

EXAMPLE:

1) Choose Directory in the Disk Commands Menu.
2) Using the custom file selector box select the Directory you want to Show.
3) Click on OK to exit. This is the only function that Cancel and OK perform the same function.

n) SEARCH DISK

The Search function will search a drive for the specified file or files. You may use pattern matching with this function.

EXAMPLE:

1) Choose Search from the Disk Commands menu.
2) Choose the drive you want to search on REVOLVERS File selector window.
3) Enter the search filter on the selection line at the bottom of the file selector box.

Suppose we want to look for a file that starts with W and we know that it's a .DOC file. Enter W*.DOC on the selection line. Every filename that starts with W and has the extension .DOC will be displayed on the screen. The entire path will be displayed so that you may find it later using the file selector box.

o) FORMAT FLOPPY

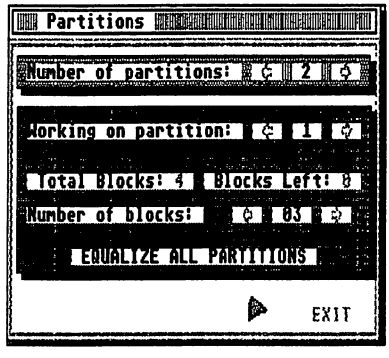
This function is similar to the desktops format but we allow an extended format.

EXAMPLE:

1) Choose Format in the Disk Commands Menu.
2) A window will appear where you can toggle the following functions by clicking on them with the left mouse button:
   Format Type: Standard 360k per side Extended 400K per side.
   Number of Sides: you have a choice of 1 or 2 sides.
   Floppy Drive: A or B
3) After selecting the above click on Format at the lower left of the window.

Folder FIX, RAM Disk or Printer Spooler then the memory configuration of the ST will change. Since Revolver's ROLLED out file must be rolled into a partition of equal or greater size, changing any of these features must be done carefully.

1) PARTITIONS



Clicking on Configure Partitions in the RAM buffers menu brings up the screen at the right.

Configure Partitions allows you to set the number of partitions available for "Switching" as well as the size of each partition.

REVOLVER's RAM disk, Print spooler and Folder Fix take memory from the top, they get their memory first and are universal for all partitions.

Because of this, the partition menu at the right calculates partition size in blocks rather than in absolute terms.

A block is roughly equal to 256K.

Overhead = (RAM Disk+Printer Spooler+REVOLVER+Folder Fix+ Disk Buffer)

Partition Size = #Blocks in Partition * (256 - Overhead/number of partitions)

Points to remember when setting up the Partitions:

1) Partition #1 must be the largest partition and Partition #2 the second largest, partition #3 the third largest etc.

2) You can only roll a file into a partition that is equal to or larger than the partition that it was rolled out of. If you roll a smaller partition into a larger partition then that partition will appear to be the same size as the smaller partition that was rolled into it. You will have to roll in a file that is the same size (

rolled out of a partition with the same number of blocks) to get that memory back. When you save a .MEM (Rollout file) REVOLVER will put the number of the partition that the file was rolled out of, in the extension.

3) GEM's overhead is 130K for each partition (if you allow GEM to boot). So partitions under 160K are unusable.

Example 1: We have a 1040ST and we want a 40K Ram Disk, 100 Folder fix, 4k Disk Buffer and two partitions. We want partition #1 to have three blocks and partition #2 to have 1 block. What is our Free Memory for each partition.

Overhead = 40k + 120k +17k + 4k = 181k (100 Folders = 17k)

Partition #1 Size = 3(256k–(181k/2))= 677.5

Partition #2 Size = 1(256k– (181k/2) = 165.5

Note: If the the #2 partition were less than 160k then Revolver would refuse this RAM configuration and drop to the defaults.

If this is what we want then we are ready to enter the partition information in the Configure Partitions Menu. You will be 3 windows under REVOLVER's main screen. Follow the steps below:

1) Bring up the partitions menu, by
   a) Clicking on Configure in REVOLVER's main screen,
   b) Click on RAM buffers
   c) Click on Configure Partitions.

Go to the top of page 4 where this example is continued.

Example 2: We will setup a Mega 4 with a 300 folder fix, one two meg partition for desktop publishing with the Atari Laser Printer, and two one meg partitions.

1) Bring up the partitions menu, by
   a) Simultaneously press the **Left Shift** – **Alternate** keys
   b) Click on Configure in REVOLVER's main screen,
   c) Click on RAM buffers
   d) Click on Configure Partitions.
2) At the top of the partitions menu scroll the **Number of partitions:** to 3 with the right and left arrow keys.

3) Scroll through **Working on Partition:** to partition #1.
4) Partition #1 has to be the largest partition so we make it the 2 meg, or at aproximately 256k per block, 8 blocks in size. Look at the line **Blocks Left :**, it should be at least 8, if it isn't then you need to scroll to another partition using the **Working on Partition:** area,to remove blocks so that we can put them in partition #1. Scroll the **Number of blocks:** to 8.
5) Go to the **Working on partition:** area and scroll to partition 2
6) Go to the Number of Blocks: and scroll to 4 blocks (1 meg). Again, if their are too few **Blocks Left: ,** remove them from another Partition (not partition 1 of course).
7) Do the same with partition 3
8) Exit the Partition menu by clicking on Exit, you will now be in the Configure RAM buffers menu.
8) Follow the directions below to install your 300 Folder fix and then save the configuration.

For the partitioning to take effect you must save the configuration using SAVE at the bottom of the Configuration main screen and then Cold Boot.

2) RAM DISK (Reset Proof)

REVOLVER's Reset Proof RAM disk will survive a warm boot or a pressing of the reset button..

EXAMPLE Installation.

1) Click on the line **Ramdisk Installed : off** until it toggles on.
2) Enter the size you want your RAM Disk on the line **Size : ____K** by clicking with the left mouse button on the underscores and entering the value in Kilo bytes (thousands of bytes). You have to be careful here to enter a value that leaves you enough RAM to run your programs.
3) Enter the drive letter ID by clicking with the left mouse button on the right and left arrows.

Remember, the RAM Disk will not be installed until you cold boot your computer. **ALSO, These values can not be changed.** If you change anything in this menu, your previous Roll Out files will not work.

3) FOLDER FIX

The ST allocates memory to remember directories and folders. If you scroll through more than 40 of them, then the ST will run out of this allocated memory and your directories will appear empty or files will disappear out of the directories. The only way to correct this (after it happens) is to warm boot the ST.

If you have a Hard Disk Drive, you will probably need to increase the allocated memory for Folders. We provide an easy way to do this in REVOLVER. Just enter the total number of folders you think you will have on your Hard Disk minus the 40 that the operating system already allocates, in this Menu.

EXAMPLE

1) In the Configure Window click on RAM Buffers with the left mouse button.
2) On the line that says **Folder Fix Installed : off** click on the off to toggle it on.
3) on the line **ADD : ___ Extra Folders** point to the underscore area and click with the left mouse button and enter the total number of folders you will need. (100 Extra Folders will use approximately 17 K bytes of RAM).

Remember, the folder fix will not be installed until you cold boot your computer.

4) PRINTER SPOOLER (Reset Proof)

The printer spooler allows you to send text to the printer then continue with anything else. You do not have to sit waiting for the printer to finish printing before going on to do something else.

Our printer spooler can survive a reset, this means that you can send text to the printer, do a warm boot and when the computer finishes booting, your text file will continue being spooled to the printer, right where it left off.

We recommend you use REVOLVER's Warm Boot rather than the Reset Button. If you use the Reset Button there is a chance that one or two characters may be garbled during the transition period of the BOOT.

EXAMPLE

1) In the Configure Window click on RAM Buffers with the left mouse button.
2) On the line that says **Print Spooler Installed : off** click on the off to toggle it on.
3) On the line that says: **SIZE** ____ **K** Enter the size of the printer spooler in thousands of bytes. (A typical page of text is 2K bytes long.)

FLUSH buffer will throw away anything in the buffer and clear the spooler's memory.

Remember, the Printer Spooler will not be installed until you cold boor your computer.

5) DISK COMMAND BUFFER

The disk commands use a buffer to speed up I/O, in many cases with a value of 32K for the buffer our disk commands are faster than the built in GEM commands from the desktop. Due to limited RAM on smaller machines like the 520ST and 1040ST, we allow you to choose a smaller value for the buffer, the minimum is 4k.

Disk Command Buffer: __**k** Enter 4k to 99K, for faster I/O use larger value. *Rollout speed will increase with a larger disk buffer.*

b) Ports SETUP Printer Port and RS–232 Port

The configuration for the printer and RS–232 port can be found in REVOLVER's Configure menu. Just click to the right of each of the parameters and they will toggle through all of the possible values.

c) SEND STRING TO PORT

This function will allow you to send commands or data to or through the following ports in the ST:

PRT = Printer AUX = RS-232
KBD = Keyboard MIDI = midi
CON = Screen

To send the string, enter it on one of the lines and then click on the port you wish to send it to. The lines are automatically sent starting with line #1 (ie: they are sent sequentially)

By entering a back slash you can send ASCII values to the ports. For example, we want to send printer commands through the printer port. Printer command start with an ESC code which is ASCII value 27, so to send this we would enter on one of the lines **\27** (to send one back slash you must enter two consecutively "\\".)

d) SET SYSTEM DATE AND TIME

1) Press LEFT SHIFT-ALT keys to bring up REVOLVERS main menu.
2) Click on Configure to bring up The Configure Menu.
3) Click on Set System Date & Time.
4) Point and click on the time and use the Arrow keys to scroll the cursor through the Time as well as the Date.
The Up-Down arrows will jump to a new field (minutes fields, seconds field, days field, etc) The right and left arrows will move right and left in the field.
5) Click on Set to write the time and date to the ST's internal clock.

e) MOUSE ACCELERATOR

Changes the ratio of mouse movement from 1:1 to 8:1

(Factorial mode) or using Proportional mode where mouse movement is based on the acceleration of the mouse. This allows you to use the mouse on desks where there isn't a lot of room to maneuver the mouse. If you need the finer detail of 1:1 in your mouse movement, you can press the Alternate key and as long as that Key is pressed your mouse ratio is back to 1:1.

1) Select Configure from REVOLVER's main menu.
2) Select Mouse Speed from the Configure Menu.
3) Toggle Mouse Accelerator on with the left mouse button.
4) Factorial Mode:
    a) Click on Type: and you will toggle through the two choices Factorial and Proportional. Choose Factorial.
    b) Using the arrow keys (click on them with the left mouse button) move the Factor: up or down.

Remember, holding the Alternate key down will change the mouse factor to 1:1 only as long as that key is held down.

Proportional Mode:
a) Click on Type: until Proportional shows.

Proportional will change the ratio of mouse movement depending on the velocity of the mouse. In other words, the faster you move the mouse, the higher the ratio.

f) TERMINAL DEFAULTS

For all of the following, just bring up the REVOLVER Main Menu by pressing the LEFT SHIFT–ALT Keys. Click on Configure and then you may toggle the following on and off with the left mouse button:

CARRIAGE BELL (on–off)

This turns the carriage return bell for the VT–52 screen off and on.

KEY REPEAT (on–off)

With this function you can turn Key Repeat on and off.

g) VERIFY (disk verify on–off)

This function turns disk verify on and off. The ST will verify (check for errors) when writing to disk. It does this by reading the sectors it just wrote to disk and comparing them with a copy in RAM. Verify doubles the time for writes to disk.

Turning verify off will not affect the speed of Reads from disk, but should nearly double write speeds. We don't recommend turning verify off. (unless you are using a RAM disk for all your disk I/O)

h) USE COLORS FROM REVOLVER

If you do not use colors from REVOLVER, then the color Palette that the currently running program has set will be the one REVOLVER uses. Sometimes there isn't enough contrast between the colors available in the pallet for you to read REVOLVER's menu.

If this is the case, then you need to **Use Colors from REVOLVER.** REVOLVER will change the color pallet when it is invoked and return the original colors when it leaves the screen.

i) Boot Messages

Boot Message will suppress messages from programs during the boot period.

j) SAVE CONFIGURATION

At the bottom of the Configure screen are several options that let you save the defaults in the configure screen. When you click on SAVE at the bottom of this screen, REVOLVER will write the REVOLVER.INF file to the AUTO folder. When REVOLVER is loaded, it will look for a REVOLVER.INF file in the AUTO folder. If it finds the .INF file, it will automatically configure all the functions in this screen to those previously saved by you.

VII SNAPSHOT SCREEN

A screen snapshot utility that will take a picture of your screen and save it to disk in Neochrome format.

EXAMPLE:

1) Press the LEFT SHIFT-ALT keys to bring up REVOLVER.
2) Click with the left mouse button on Snapshot Screen.
3) Choose path and File name you want the .NEO file saved under it is not necessary to add the Extension, REVOLVER will take care of that for you. (See Appendix: HOW TO USE CUSTOM FILE SELECTOR)

VIII REBOOT SYSTEM

There are two ways to reboot the system in the ST: Warm Boot and Cold Boot.

COLD BOOT will clear ALL memory and reset the system variables. You can cold boot your computer manually by turning it off (wait 5 seconds) and turning it on again. Or click on the Cold boot button in the Reboot system menu. This method (Cold Boot) will also erase our Reset Proof RAM disk, as well as remove REVOLVER from High memory. It is usually not necessary to cold boot the computer.

WARM BOOT will reset SOME of the system vectors and reload the desktop. Most of REVOLVERs features have been designed to take advantage of the ST's Warm Boot ability (they survive a warm boot). (Same as pressing the reset button.)

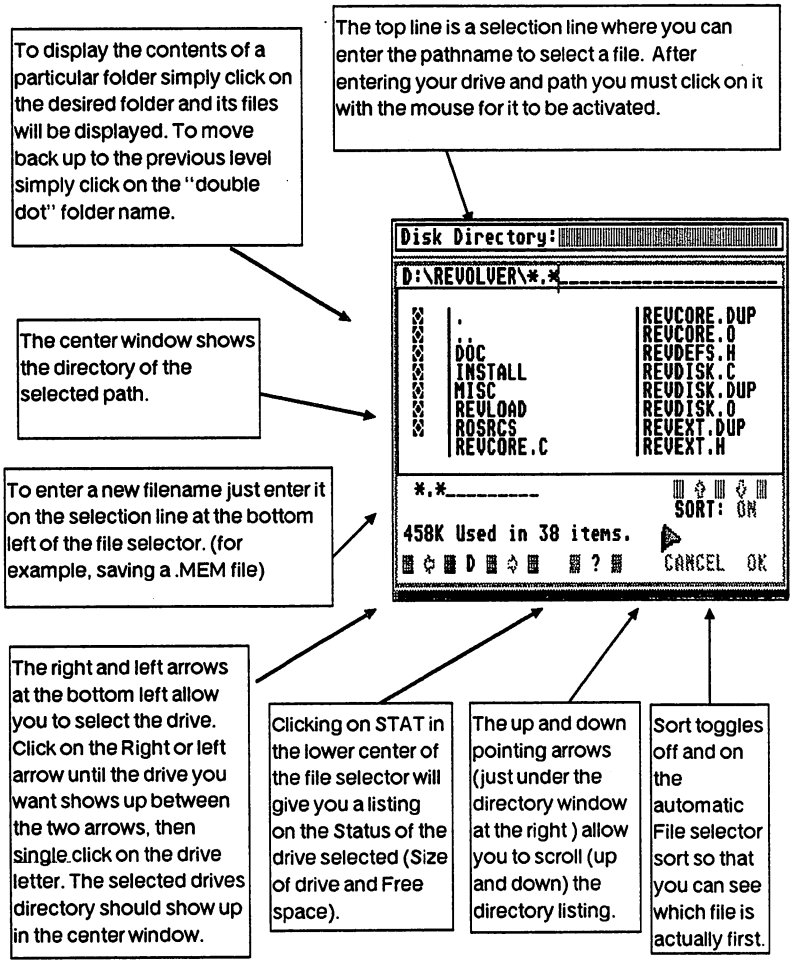
IX VT-52 emulator

The VT-52 Emulator is similar to the emulator you received with your ST. It does have two additional commands.

F8 (Function key 8) will cause the modem to Hang up by pulling the DTR line low. For this to work with your modem, you must have the proper dip switch set (DTR not forced true) or if you have a programable modem (the new 2400 baud with memory) you must program it to recognize the DTR transition (&D3).

To Exit the VT-52, screen press UNDO.

X REVOLVER's File Selector


To display the contents of a particular folder simply click on the desired folder and its files will be displayed. To move back up to the previous level simply click on the "double dot" folder name.
The top line is a selection line where you can enter the pathname to select a file. After entering your drive and path you must click on it with the mouse for it to be activated.
Disk Directory:
D:\REVOLVER*.*
. .. DOC INSTALL MISC REVLOAD ROSRCS REVCORE.C
REVCORE.DUP REVCORE.O REVDEFS.H REVDISK.C REVDISK.DUP REVDISK.O REVEXT.DUP REVEXT.H
.
SORT: ON
458K Used in 38 items.
D ? CANCEL OK
The center window shows the directory of the selected path.
To enter a new filename just enter it on the selection line at the bottom left of the file selector. (for example, saving a .MEM file)
The right and left arrows at the bottom left allow you to select the drive. Click on the Right or left arrow until the drive you want shows up between the two arrows, then single click on the drive letter. The selected drives directory should show up in the center window.
Clicking on STAT in the lower center of the file selector will give you a listing on the Status of the drive selected (Size of drive and Free space).
The up and down pointing arrows (just under the directory window at the right) allow you to scroll (up and down) the directory listing.
Sort toggles off and on the automatic File selector sort so that you can see which file is actually first.

Clicking on a file name will place that name in the file name field at the bottom of the selector. Clicking on **OK** will select the currently displayed file and path, Cancel will abort the current function.

XI Tips for the REVOLVER User from Randy Mears

This manual's explanation of how to use REVOLVER, what its features do and how to use them, will give you the savvy you need to become adept with the product. Because REVOLVER gives so much power to your ST computing, there are many things that you will discover on your own, including many capabilities that are not immediately obvious. Here are some of the things that I have discovered while testing and using it.

Switching Partitions via the Control–Left Shift–Alternate key combination is best accomplished by pressing the Control key first

The view function is outstanding, not only will it let you see the screen for another partition, it will let you compare it to the currently active screen. The ability to slide the viewed screen up and down in front of the current screen is very handy.

If the currently active partition crashes you have a couple of choices. You can press the reset button and re–boot the crashed partition, usually leaving all other partitions intact or you can press Control–Left Shift–Alt and switch to the next partition. At any rate, if one of your partitions locks up or crashes, all you will lose is that partition... just press the reset button.

Suppose you are copying files using the desktop and get one of those Retry/Cancel messages because your output diskette is not formatted. Without REVOLVER you would have to cancel the copy, format the disk than start the copy over again. With REVOLVER simply call up REVOLVER while the Retry/Cancel message is on the screen, format the disk using REVOLVER's formatter, exit REVOLVER then click RETRY on the Retry/ Cancel message and your copy operation will continue.

The Send to Port commands solve an annoying problem for me. I have a STAR SB–10 printer, a rare and incompatible device, and I like to put it into letter quality mode so that I can

print from the desktop. This is done with REVOLVER by sending \27\52 to the printer port. I can also, while the current document is printing, send the codes required to turn letter quality off. It will be added to the end of the spooler so that the current document is still printing in letter quality. While the printing is still going on I can print another file to the spooler. When the current document finishes the next document will print but in normal quality.

With REVOLVER it is possible to mix and match desktops. For instance you can be using a GDOS application in one partition and a game in another. You can have multiple sets of desk accessories etc..

GDOS has always presented me with alot of problems, since it slows my machine down and is incompatible with some software I don't really want it loaded unless I am using software that needs it. To solve that problem I booted a partition with GDOS and Rolled Out the Desktop under the name GDOS.MEM. I now boot all partitions without GDOS and, when I need it, I just Roll In GDOS.MEM to one of my partitions and run whatever GDOS software I need there.

TEMPLEMON is an excellent debugging tool. The trouble is that the LASER C Shell will not run if TEMPLEMON is loaded. Since I do alot of development and need to use TEMPLEMON to find problems it would be nice if I could use LASER and TEMPLEMON without having to re-boot my machine each time I need to change. REVOLVER allowed me to solve this problem in the same way that I solved the GDOS problem, I just Rolled Out a Desktop with TEMPLEMON installed and you know the rest.

REVOLVER's file finder is necessary for me! With a 40 meg hard drive and 180 folders in 4 partitions I tend to forget where things are. REVOLVER tells me where to look.

The more memory you have, the more you need REVOLVER. I run a 4 Meg Mega and have it configured as follows:

300 folder fix 1000K Ram Disk 64K Print Spooler 3 Partitions

Here is my 2.5 meg configuration:

200 folder fix 400K Ram Disk 64k print spooler 2 partitions

On a 1 meg ST you should configure as follows:

folder fix off Ram Disk Off print spooler off 2 partitions

b) Beta Test Report

The beta test report can be found on the distribution diskette and is called RELEASE.TXT. It contains the tips and workarounds for programs used with REVOLVER.

b) Support for REVOLVER

If you have a Modem we have support areas on the following services:

a) Our Support BBS 813-924-4590 (300-2400 baud) (8N1)
b) Compuserve **Go ATARIVEN** Section 2 (Intersect)
c) GENIE Page 475 Bulletin board topic 20

Voice, a real person:

Phone 813-923-8774 (9AM through 5PM Eastern time)

Be sure to have a list of the steps necessary to create the problem you are having as well as having your serial number handy.

We will be providing upgrades of this product at regular intervals. You can check our BBS, Compuserve or Genie for the latest version. You can even leave us a message with your ideas for improvements in future releases.

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If this interests you, send us a letter with a detailed description of your product. Please include screen shots whenever possible.

When we receive your letter we will reply with background information on our corporation and an outline of the steps required to submit products for publication.

Randy Mears
President
Intersect Software

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REVOLVER©

THE ULTIMATE SWITCHER
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SERIAL #

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